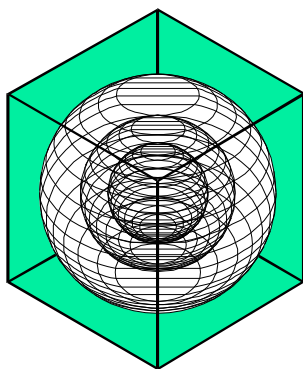


**NO_x EMISSIONS REDUCTION FROM
CPS ENERGY'S "SAVE FOR TOMORROW ENERGY PLAN" WITHIN
THE ALAMO AREA COUNCIL OF GOVERNMENTS
REPORT TO THE
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ)**



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October 2010



**ENERGY SYSTEMS
LABORATORY**

**Texas Engineering Experiment Station
Texas A&M University System**

Disclaimer

This report is provided by the Texas Engineering Experiment Station (TEES) pursuant to TCEQ's *Guide for Incorporating Energy Efficiency/Renewable Energy (EE/RE) Projects into the SIP*, dated February 6, 2004 (a deliverable under the TCEQ contract with the ESL) and Section 388.003, (2) (A) & (B) of the Texas Health and Safety Code and is distributed for purposes of public information. The information provided in this report is intended to be the best available information at the time of publication. TEES makes no claim or warranty, expressed or implied that the report or data herein is necessarily error-free. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by the Energy Systems Laboratory or any of its employees. The views and opinions of authors expressed herein do not necessarily state or reflect those of the Texas Engineering Experiment Station or the Energy Systems Laboratory.

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The Energy Systems Laboratory greatly appreciates the assistance and guidance provided by the staff at the Texas Commission on Environmental Quality on this report. We also appreciate the vision of Peter Bella of the Alamo Area Council of Government (AACOG) for incorporating voluntary energy efficiency projects in the AACOG's Clean Air Plan (for emissions reduction credits), which has helped to focus and refine the application of TCEQ guidance contained in the Guide for Incorporating Energy Efficiency/Renewable Energy (EE/RE) Projects into the SIP.

Executive Summary

ESL used the Texas Commission on Environmental Quality's (TCEQ) *Guide for Incorporating Energy Efficiency/Renewable Energy (EE/RE) Projects into the SIP* for local entities dated February 6, 2004 to survey potential projects in the AACOG area that occurred after the State's base period (September 1, 2001) for their local Clean Air Plan.

CPS Energy retained Nexant, Inc. (Nexant) to conduct a comprehensive, independent measurement and verification (M&V) evaluation of CPS Energy's 2009 DSM programs. Nexant surveyed the energy and demand savings achieved by CPS Energy's 2009 DSM programs. In 2009, the programs offered by CPS Energy had two sectors: residential and non-residential (commercial).

To determine net program impacts, Nexant conducted market research of evaluations for other utility-sponsored DSM programs around the country. From the survey conducted in 2009, total net energy and demand savings from the residential and non-residential sectors are 86,712,978 kWh (residential subtotal is 62,369,566 kWh and non-residential subtotal is 24,343,412 kWh).

Nexant calculated CPS Energy's DSM potential through 2020 and found there to be significant room for program growth. Total cumulative achievable savings through the 2020 program year are expected to be 2,543 GWh of electricity savings (based on the aggressive incentive scenario and exception of industrial sector).

According to the TCEQ/ESL, the total annual NO_x emissions reductions estimated through 2009 energy savings were 114.03 ton/year. Annual NO_x emissions reductions of residential sector were 82.02 ton/yr and annual NO_x emissions reductions of non-residential sector were 32.01 Ton/yr.

The NO_x emissions reductions estimated through 2020 energy savings potential were 3,344 ton/year. Annual NO_x emissions reductions of residential sector were 1,873 ton/yr and annual NO_x emissions reductions of non-residential sector, except of industrial sector, were 1,471 ton/yr.

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NOX EMISSIONS REDUCTION FROM CPS ENERGY’S “SAVE FOR TOMORROW ENERGY PLAN” WITHIN THE ALAMO AREA COUNCIL OF GOVERNMENTS

1. Background

The Energy Systems Laboratory (ESL) at the Texas Engineering Experiment Station, Texas A&M University System was contacted by Mr. Peter Bella of the Alamo Area Council of Governments (AACOG) to help document large-scale, energy efficiency projects for SIP credits within their “Save for Tomorrow Energy Plan (STEP)”. The goal of the STEP program is to conserve 771 megawatts of power by the year 2020 through energy efficiency. The purpose of this study is to estimate the creditable emissions reductions from energy efficiency actions in the city of San Antonio. The survey was conducted by CPS Energy’s 2009 demand side management (DSM) programs.

2. Approach

ESL used the Texas Commission on Environmental Quality’s (TCEQ) *Guide for Incorporating Energy Efficiency/Renewable Energy (EE/RE) Projects into the SIP* for local entities dated February 6, 2004 to survey potential projects in the AACOG area that occurred after the State’s base period (September 1, 2001), for their local Clean Air Plan. CPS Energy retained Nexant, Inc. (Nexant) to conduct a comprehensive, independent measurement and verification (M&V) evaluation of CPS Energy’s 2009 DSM programs. Nexant surveyed the energy and demand savings achieved by CPS Energy’s 2009 DSM programs. In 2009, the programs offered by CPS Energy had two sectors: residential and non-residential (commercial).

CPS Energy offered the following programs for the residential sector:

- Compact Fluorescent Lamps (CFL)
- Home Efficiency
- HVAC
- Peak Saver
- Solar Initiative
- Air Flow Performance

The non-residential sector included the following program offerings:

- Lighting
- HVAC
- Motors, Cool Roofs, Window Film, and others
- Lean, Clean, and Energy¹
- Demand Response

¹ The Lean, Clean, and Energy program provides diagnostic training and facility assessment opportunities for industrial facilities. Energy efficiency measures identified through this program that are eligible for STEP rebates were included in the savings totals for the appropriate non-residential program in which they participated and were not individually classified in the Nexant report, Measurement and Verification of CPS Energy’s 2009 DSM Program Offerings.

Nexant (2008) conducted the DSM potential study of the DSM resource available in the CPS Energy service territory and modeled the DSM potential available through 2020. The DSM potential study includes an evaluation of the DSM resource available to each of CPS Energy's primary sectors with a focus on energy efficiency (EE) programs. EE-DSM programs encourage customers to install energy efficient equipment thereby saving electricity and reducing system demand. Nexant used its experience with similar utility DSM programs, knowledge of the EE market, and familiarity with DSM technologies to create a comprehensive, end-use forecast of CPS Energy's achievable savings.

Engineers from the Energy Systems Laboratory estimated the potential NOx emissions reduction for 2009 net energy and demand savings by CPS Energy's 2009 DSM programs. In addition, the engineers calculated NOx emissions reduction through 2020 with total economic and achievable potential for CPS Energy. The documented savings were then converted to NOx emissions reductions on a ton/year and ton/peak-day basis using TCEQ/ESL's emissions reduction methodology and EPA's eGRID emissions database (Haberl et al., 2004).

3. EE/RE Projects and Energy Savings Summary

To determine net program impacts, Nexant (2010) conducted market research of evaluations for other utility-sponsored DSM programs around the country. Net energy and demand savings are listed in Table 1 for individual programs, as well as totals by sector and overall. From the survey conducted in 2009, total net energy and demand savings from the residential and non-residential sectors were 86,712,978 kWh.

Table 1. 2009 Net Energy and Demand Savings

Program	Energy Savings (kWh)	Peak Demand Savings (kW)	Non-Coinc. Demand Savings (kW)
CFL	52,234,024	5,186	61,157
Home Efficiency	1,815,706	737	801
Residential HVAC	6,814,768	2,078	2,597
Peak Saver	735,677	13,048	13,048
Solar Initiative	327,694	176	176
Air Flow Performance	441,698	219	274
Residential Subtotal	62,369,566	21,444	78,052
Commercial Lighting	18,478,590	4,151	4,757
Commercial HVAC	4,830,881	2,163	2,855
Commercial Other	418,501	135	161
Demand Response	615,439	16,884	16,884
Non-Residential Subtotal	24,343,412	23,333	24,657
TOTAL	86,712,978	44,777	102,709

Nexant calculated CPS Energy's DSM potential through 2020 and found significant room for program growth. Total cumulative achievable savings through the 2020 program year are expected to be 2,543 GWh of electricity savings (based on the aggressive incentive scenario and exception of industrial sector).

Table 2. Projected Energy Savings in 2020

Program	Energy Savings (kWh)	Peak Demand Savings (kW)
Residential Subtotal	1,424,499,000	241,000
Non-Residential Subtotal	1,118,773,000	319,000
TOTAL	2,543,272,000	560,000

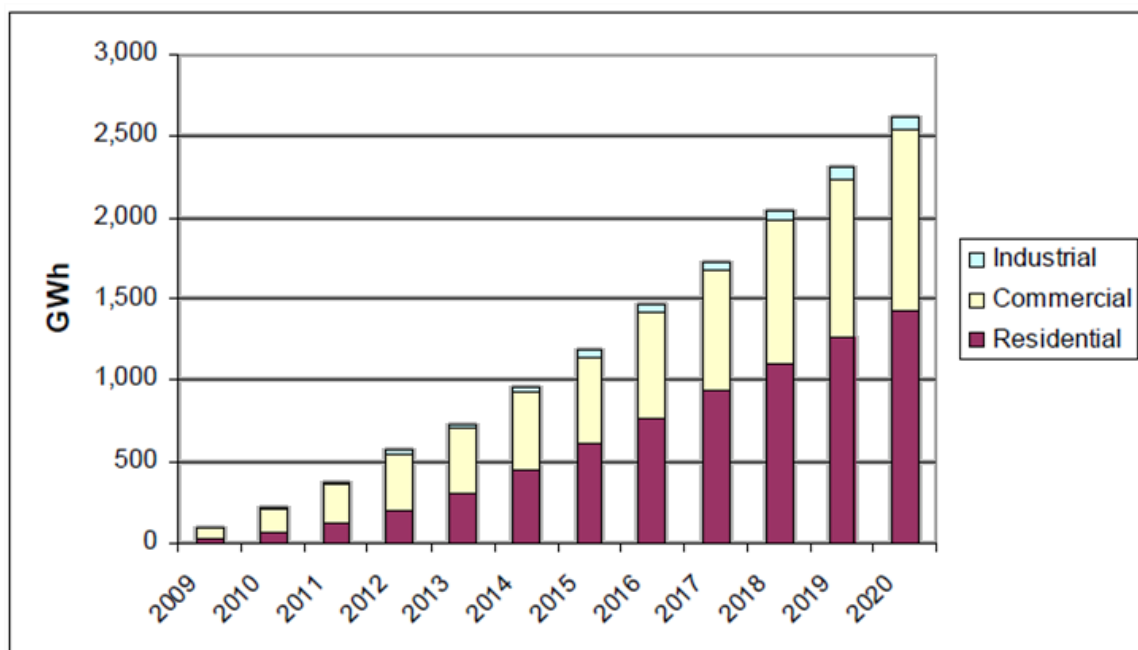


Figure 1. Achievable Electricity Savings Forecast for STEP program (Nexant., 2008).

4. Power Control Area

The Power Control Area (PCA) for Bexar County, Texas, is San Antonio Public Service. The annual total electricity savings and peak daily total electricity savings were entered into the eGRID spreadsheet from the San Antonio PCA.

5. Explanation of Tables and Figures

Nexant conducted market research of evaluations for other utility-sponsored DSM programs around the country. Net-to-gross (NTG) ratios from programs similar in operation, goals, and market to CPS Energy's programs were applied to the gross program savings to determine program net impacts, as shown in Table 3. Table 4 shows economic and achievable savings

potential in 2020. Tables 5 and 6 list the inputs based on the annual electricity savings and peak-day electricity savings, respectively.

Table 3. 2009 Program Gross and Net Impacts from Measurement and Verification of CPS Energy's 2009 DSM Program Offerings, Reported by NEXANT, INC. May, 2010.

Program	Gross Savings			NTG Ratio	Net Impacts		
	Energy Savings (kWh)	Peak Demand Savings (kW)	Non-Coinc. Demand Savings (kW)		Energy Savings (kWh)	Peak Demand Savings (kW)	Non-Coinc. Demand Savings (kW)
CFL	65,292,530	6,483	76,446	0.80	52,234,024	5,186	61,157
Home Efficiency	1,952,372	792	861	0.93	1,815,706	737	801
Residential HVAC	7,173,440	2,187	2,734	0.95	6,814,768	2,078	2,597
Peak Saver	735,677	13,048	13,048	1.00	735,677	13,048	13,048
Solar Initiative	327,694	176	176	1.00	327,694	176	176
Air Flow Performance	490,775	243	304	0.90	441,698	219	274
<i>Residential Subtotal</i>	<i>75,972,488</i>	<i>22,929</i>	<i>93,569</i>	<i>-</i>	<i>62,369,566</i>	<i>21,444</i>	<i>78,052</i>
Commercial Lighting	21,739,518	4,884	5,596	0.85	18,478,590	4,151	4,757
Commercial HVAC	5,032,168	2,253	2,974	0.96	4,830,881	2,163	2,855
Commercial Other (Motors, Window Film, Roof Coating, Other)	454,049	150	179	0.89-0.94	418,501	135	161
Demand Response	615,439	16,884	16,884	1.00	615,439	16,884	16,884
<i>Commercial Subtotal</i>	<i>27,841,174</i>	<i>24,171</i>	<i>25,633</i>	<i>-</i>	<i>24,343,412</i>	<i>23,333</i>	<i>24,657</i>
Total	103,813,662	47,100	119,202		86,712,978	44,777	102,709

Table 4. Economic and Achievable Potential (Absolute and Percent 2020 Forecast) from Demand Side Management Potential Study – Volume 1, Reported by NEXANT, INC. November, 2008

Load Type	Economic Potential		Achievable-Low Incentive		Achievable-Mod Incentive		Achievable-Agg Incentive	
Residential								
Reduction in Electricity Sales (MWh)	2,403,262	22%	695,546	6%	1,019,647	9%	1,424,499	13%
Reduction in Peak Demand (MW)	417	16%	115	4%	171	7%	241	9%
Commercial								
Reduction in Electricity Sales (MWh)	3,262,585	22%	233,111	2%	520,288	4%	1,118,773	8%
Reduction in Peak Demand (MW)	889	26%	70	2%	151	4%	319	9%
Industrial								
Reduction in Electricity Sales (MWh)	217,525	16%	21,647	2%	51,221	4%	75,202	6%
Reduction in Peak Demand (MW)	26	14%	3	1%	6	3%	9	5%
Total								
Reduction in Electricity Sales (MWh)	5,883,371	21%	950,304	3%	1,591,157	6%	2,618,474	9%
Reduction in Peak Demand (MW)	1,332	21%	187	3%	327	5%	569	9%

In 2009, the total annual reduction and peak-day reduction of NO_x emissions from generating units in Texas counties due to electricity savings in the city of San Antonio, TX, are listed in Table 7. The NO_x emissions reductions in Bexar County were due to both electricity and demand are listed in Tables 7, 8, and 9 for total, residential, and commercial, respectively. In 2009, the total annual NO_x emissions reductions were estimated to be 114.03 Ton-NO_x/year and the peak-day reduction of NO_x emissions was 0.31 Ton-NO_x/day (as indicated in the last row of Table 7). In 2020, the projected reduction of NO_x emissions is listed in Table 10. The total

annual NO_x emissions reductions are 1,873.22 Ton-NO_x/year and the peak-day reduction of NO_x emissions is 9.16 Ton-NO_x/day.

Tables 7 through 10, yellow, high-lighted counties indicate near non-attainment counties. The white, lower-case counties indicate non-attainment counties. The white upper-case counties indicate those in attainment areas with power plants.

The 2009 annual reduction and peak-day reduction of NO_x emissions due to electricity savings in Bexar County are shown in Figures 2, through 5. The residential and commercial annual reduction of NO_x emissions from the CPS STEP program is shown in Figures 6 and 7. The residential and commercial peak-day reduction of NO_x emissions from the CPS STEP program is shown in Figures 8 and 9. The projected total annual and peak-day NO_x emissions reductions in 2020 are shown in Figures 10 through Figure 13.

Table 5. Annual NOx Emissions Reductions by Power Control Areas Based on Total Electricity from Measurement and Verification of CPS Energy's 2009 DSM Program Offerings, Reported by NEXANT, INC. May, 2010.

Area	County	American Electric Power - West (ERCOT) /PCA	NOx Reductions (lbs)	Austin Energy/PCA	NOx Reductions (lbs)	Brownsville Public Utilities Board/PCA	NOx Reductions (lbs/year)	Lower Colorado River Authority /PCA	NOx Reductions (lbs)	Reliant Energy HL&P/PCA	NOx Reductions (lbs)	San Antonio Public Service Bd/PCA	NOx Reductions (lbs)	South Texas Electric Coop INC/PCA	NOx Reductions (lbs)	Texas Municipal Power Pool/PCA	NOx Reductions (lbs)	Texas-New Mexico Power Co/PCA	NOx Reductions (lbs)	TXU Electric/PCA	NOx Reductions (lbs)	Total NOx Reductions (lbs)	Total NOx Reductions (Tons)
Austin-San Antonio Area	BASTROP	0.01	0.00	0.20	0.00		0.00	0.34	0.00		0.00	0.01	867.13		0.00		0.00		0.00		0.00	867.13	0.43
	BEXAR	0.06	0.00	0.09	0.00	0.04	0.00	0.16	0.00		0.00	2.00	173425.96	0.08	0.00	0.01	0.00		0.00		0.00	173425.96	86.71
	TRAVIS		0.00	0.46	0.00		0.00	0.05	0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	FAYETTE	0.02	0.00	0.86	0.00	0.02	0.00	1.51	0.00	0.01	0.00	0.04	3468.52	0.01	0.00	0.02	0.00		0.00	0.02	0.00	3468.52	1.73
	LLANO		0.00	0.12	0.00		0.00	0.21	0.00		0.00	0.01	867.13		0.00		0.00		0.00		0.00	867.13	0.43
	CALDWELL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	COMAL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	GUADALUPE		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	HAYS		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	WILLIAMSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
WILSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00	
Dallas-Fort Worth Area	COLLIN	0.01	0.00	0.01	0.00		0.00	0.02	0.00	0.01	0.00		0.00	0.05	0.00	0.19	0.00		0.00	0.02	0.00	0.00	0.00
	DALLAS	0.06	0.00	0.06	0.00	0.04	0.00	0.09	0.00	0.03	0.00	0.01	867.13	0.09	0.00	0.30	0.00	0.09	0.00	0.51	0.00	867.13	0.43
	DENTON		0.00	0.01	0.00		0.00	0.01	0.00		0.00		0.00	0.04	0.00	0.15	0.00		0.00	0.01	0.00	0.00	0.00
	JOHNSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00	0.00	0.00
	PARKER		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.03	0.00		0.00		0.00	0.00	0.00
	CHEROKEE	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.00		0.00		0.00	0.02	0.00	0.06	0.00	0.02	0.00	0.10	0.00	0.00	0.00
	COKE	0.03	0.00		0.00	0.02	0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00	0.00	0.00
	COLEMAN	0.02	0.00		0.00	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	FANNIN	0.02	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.03	0.00	0.09	0.00	0.03	0.00	0.17	0.00	0.00	0.00
	FRIO	0.05	0.00		0.00	0.04	0.00	0.01	0.00		0.00		0.00	1.15	0.00	0.07	0.00		0.00		0.00	0.00	0.00
	HARDEMAN	0.01	0.00		0.00	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	HASKELL	0.16	0.00		0.00	0.12	0.00	0.01	0.00		0.00		0.00	0.03	0.00	0.01	0.00		0.00	0.01	0.00	0.00	0.00
	HENDERSON		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.00	0.00
	HOOD	0.02	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.01	0.00		0.00	0.03	0.00	0.12	0.00	0.04	0.00	0.22	0.00	0.00	0.00
	JONES	0.14	0.00		0.00	0.11	0.00		0.00		0.00		0.00	0.03	0.00		0.00		0.00	0.01	0.00	0.00	0.00
	LAMAR		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.00	0.00
	LIMESTONE	0.01	0.00	0.01	0.00		0.00		0.00	0.05	0.00	0.01	867.13		0.00		0.00		0.00		0.00	867.13	0.43
	MCLENNAN	0.04	0.00	0.04	0.00	0.03	0.00	0.07	0.00	0.02	0.00	0.01	867.13	0.06	0.00	0.22	0.00	0.07	0.00	0.40	0.00	867.13	0.43
	MITCHELL	0.04	0.00	0.04	0.00	0.03	0.00	0.07	0.00	0.02	0.00	0.01	867.13	0.06	0.00	0.21	0.00	0.07	0.00	0.39	0.00	867.13	0.43
	NOLAN		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.00	0.00
	PALO PINTO	0.01	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.09	0.00	0.36	0.00		0.00	0.02	0.00	0.00	0.00
	RED RIVER		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00		0.00	0.02	0.00	0.00	0.00
	TAYLOR	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	TITUS	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.00		0.00		0.00	0.02	0.00	0.05	0.00	0.02	0.00	0.10	0.00	0.00	0.00
	YOUNG	0.02	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.03	0.00	0.09	0.00	0.03	0.00	0.16	0.00	0.00	0.00
	TARRANT	0.04	0.00	0.04	0.00	0.03	0.00	0.06	0.00	0.02	0.00	0.01	867.13	0.05	0.00	0.18	0.00	0.06	0.00	0.33	0.00	867.13	0.43
	ELLIS		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	KAUFMAN		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	ROCKWALL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	Houston - Galveston Area	BRAZORIA	0.01	0.00	0.01	0.00		0.00		0.00	0.05	0.00	0.01	867.13		0.00		0.00		0.00		0.00	867.13
BRAZOS			0.00	0.01	0.00		0.00	0.01	0.00		0.00		0.00	0.03	0.00	0.11	0.00		0.00	0.01	0.00	0.00	0.00
GRIMES		0.01	0.00	0.01	0.00		0.00	0.02	0.00	0.01	0.00		0.00	0.06	0.00	0.23	0.00		0.00	0.01	0.00	0.00	0.00
WHARTON			0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
CHAMBERS		0.05	0.00	0.06	0.00	0.03	0.00	0.02	0.00	0.35	0.00	0.08	6937.04	0.03	0.00	0.02	0.00	0.02	0.00	0.03	0.00	6937.04	3.47
FORT BEND		0.13	0.00	0.17	0.00	0.10	0.00	0.06	0.00	1.01	0.00	0.23	19943.98	0.09	0.00	0.06	0.00	0.07	0.00	0.10	0.00	19943.98	9.97
GALVESTON		0.05	0.00	0.06	0.00	0.04	0.00	0.02	0.00	0.39	0.00	0.09	7804.17	0.04	0.00	0.03	0.00	0.42	0.00	0.04	0.00	7804.17	3.90
ROBERTSON			0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00	0.40	0.00	0.01	0.00	0.00	0.00
HARRIS		0.05	0.00	0.07	0.00	0.04	0.00	0.02	0.00	0.41	0.00	0.09	7804.17	0.04	0.00	0.02	0.00	0.03	0.00	0.04	0.00	7804.17	3.90
HARDIN			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
JEFFERSON			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
LIBERTY			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
MONTGOMERY			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
ORANGE			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
WALLER			0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
El Paso Area	EL PASO		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	
ETC	RUSK	0.01	0.00	0.01	0.00		0.00	0.01	0.00		0.00		0.00	0.01	0.00	0.04	0.00	0.01	0.00	0.07	0.00	0.00	0.00
	CROCKETT	0.14	0.00		0.00	0.11	0.00		0.00		0.00		0.00	0.11	0.00		0.00		0.00		0.00	0.00	0.00
	FREESTONE	0.02	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.01	0.00		0.00	0.03	0.00	0.12	0.00	0.04	0.00	0.22	0.00	0.00	0.

Table 6. Peak-Day NO_x Emissions Reductions by Power Control Areas Based on Total Electricity from Measurement and Verification of CPS Energy's 2009 DSM Program Offerings, Reported by NEXANT, INC. (2010).

		American Electric Power West (ERCOT) /PCA	NOx Reductions (lbs)	Austin Energy/PCA	NOx Reductions (lbs)	Brownsville Public Utilities Board/PCA	NOx Reductions (lbs/year)	Lower Colorado River Authority /PCA	NOx Reductions (lbs)	Reliant Energy HL&P/PCA	NOx Reductions (lbs)	San Antonio Public Service Bd/PCA	NOx Reductions (lbs)	South Texas Electric Coop INC/PCA	NOx Reductions (lbs)	Texas Municipal Power Pool/PCA	NOx Reductions (lbs)	Texas-New Mexico Power Co/PCA	NOx Reductions (lbs)	TXU Electric/PCA	NOx Reductions (lbs)	Total NOx Reductions (lbs)	Total NOx Reductions (Tons)
Area	County																						
Austin-San Antonio Area	BASTROP	0.01	0.00	0.20	0.00		0.00	0.34	0.00		0.00	0.01	2.38		0.00		0.00		0.00		0.00	2.38	0.00
	BEXAR	0.06	0.00	0.09	0.00	0.04	0.00	0.16	0.00		0.00	2.00	475.14	0.08	0.00	0.01	0.00		0.00		475.14	0.24	
	TRAVIS		0.00	0.46	0.00		0.00	0.05	0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	FAYETTE	0.02	0.00	0.86	0.00	0.02	0.00	1.51	0.00	0.01	0.00	0.04	9.50	0.01	0.00	0.02	0.00		0.00	0.02	0.00	9.50	0.00
	LLANO		0.00	0.12	0.00		0.00	0.21	0.00		0.00	0.01	2.38		0.00		0.00		0.00		0.00	2.38	0.00
	CALDWELL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	COMAL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	GUADALUPE		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	HAYS		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	WILLIAMSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
WILSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00	
Dallas-Fort Worth Area	COLLIN	0.01	0.00	0.01	0.00		0.00	0.02	0.00	0.01	0.00		0.00	0.05	0.00	0.19	0.00		0.00	0.02	0.00	0.00	0.00
	DALLAS	0.06	0.00	0.06	0.00	0.04	0.00	0.09	0.00	0.03	0.00	0.01	2.38	0.09	0.00	0.30	0.00	0.09	0.00	0.51	0.00	2.38	0.00
	DENTON		0.00	0.01	0.00		0.00	0.01	0.00		0.00		0.00	0.04	0.00	0.15	0.00		0.00	0.01	0.00	0.00	0.00
	JOHNSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00	0.00	0.00
	PARKER		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.03	0.00		0.00		0.00	0.00	0.00
	CHEROKEE	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.00		0.00		0.00	0.02	0.00	0.06	0.00	0.02	0.00	0.10	0.00	0.00	0.00
	COKE	0.03	0.00		0.00	0.02	0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00	0.00	0.00
	COLEMAN	0.02	0.00		0.00	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	FANNIN	0.02	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.03	0.00	0.09	0.00	0.03	0.00	0.17	0.00	0.00	0.00
	FRIO	0.05	0.00		0.00	0.04	0.00	0.01	0.00		0.00		0.00	1.15	0.00	0.07	0.00		0.00		0.00	0.00	0.00
	HARDEMAN	0.01	0.00		0.00	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	HASKELL	0.16	0.00		0.00	0.12	0.00	0.01	0.00		0.00		0.00	0.03	0.00	0.01	0.00		0.00	0.01	0.00	0.00	0.00
	HENDERSON		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.00	0.00
	HOOD	0.02	0.00	0.02	0.00	0.02	0.00	0.04	0.00	0.01	0.00		0.00	0.03	0.00	0.12	0.00	0.04	0.00	0.22	0.00	0.00	0.00
	JONES	0.14	0.00		0.00	0.11	0.00		0.00		0.00		0.00	0.03	0.00		0.00		0.00	0.01	0.00	0.00	0.00
	LAMAR		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.00	0.00
	LIMESTONE	0.01	0.00	0.01	0.00		0.00		0.00	0.05	0.00	0.01	2.38		0.00		0.00		0.00	0.01	0.00	2.38	0.00
	MCLENNAN	0.04	0.00	0.04	0.00	0.03	0.00	0.07	0.00	0.02	0.00	0.01	2.38	0.06	0.00	0.22	0.00	0.07	0.00	0.40	0.00	2.38	0.00
	MITCHELL	0.04	0.00	0.04	0.00	0.03	0.00	0.07	0.00	0.02	0.00	0.01	2.38	0.06	0.00	0.21	0.00	0.07	0.00	0.39	0.00	2.38	0.00
	NOLAN		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.01	0.00	0.00	0.00
	PALO PINTO	0.01	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.09	0.00	0.36	0.00		0.00	0.02	0.00	0.00	0.00
	RED RIVER		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.01	0.00		0.00	0.02	0.00	0.00
	TAYLOR	0.01	0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	TITUS	0.01	0.00	0.01	0.00	0.01	0.00	0.02	0.00		0.00		0.00	0.02	0.00		0.05	0.00	0.02	0.00	0.10	0.00	0.00
	YOUNG	0.02	0.00	0.02	0.00	0.01	0.00	0.03	0.00	0.01	0.00		0.00	0.03	0.00	0.09	0.00	0.03	0.00	0.16	0.00	0.00	0.00
	TARRANT	0.04	0.00	0.04	0.00	0.03	0.00	0.06	0.00	0.02	0.00	0.01	2.38	0.05	0.00	0.18	0.00	0.06	0.00	0.33	0.00	2.38	0.00
	ELLIS		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			0.00	0.00	0.00	0.00
	KAUFMAN		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			0.00	0.00	0.00	0.00
	ROCKWALL		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00			0.00	0.00	0.00	0.00
Houston - Galveston Area	BRAZORIA	0.01	0.00	0.01	0.00		0.00		0.00	0.05	0.00	0.01	2.38		0.00		0.00		0.00		0.00	2.38	0.00
	BRAZOS		0.00	0.01	0.00		0.00	0.01	0.00		0.00		0.00	0.03	0.00	0.11	0.00		0.00	0.01	0.00	0.00	0.00
	GRIMES	0.01	0.00	0.01	0.00		0.00	0.02	0.00	0.01	0.00		0.00	0.06	0.00	0.23	0.00		0.00	0.01	0.00	0.00	0.00
	WHARTON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	CHAMBERS	0.05	0.00	0.06	0.00	0.03	0.00	0.02	0.00	0.35	0.00	0.08	19.01	0.03	0.00	0.02	0.00	0.02	0.00	0.03	0.00	19.01	0.01
	FORT BEND	0.13	0.00	0.17	0.00	0.10	0.00	0.06	0.00	1.01	0.00	0.23	54.64	0.09	0.00	0.06	0.00	0.07	0.00	0.10	0.00	54.64	0.03
	GALVESTON	0.05	0.00	0.06	0.00	0.04	0.00	0.02	0.00	0.39	0.00	0.09	21.38	0.04	0.00	0.03	0.00	0.42	0.00	0.04	0.00	21.38	0.01
	ROBERTSON		0.00		0.00		0.00		0.00	0.01	0.00		0.00		0.00		0.40	0.00	0.01	0.00	0.00	0.00	
	HARRIS	0.05	0.00	0.07	0.00	0.04	0.00	0.02	0.00	0.41	0.00	0.09	21.38	0.04	0.00	0.02	0.00	0.03	0.00	0.04	0.00	21.38	0.01
	HARDIN		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	JEFFERSON		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	LIBERTY		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	MONTGOMERY		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
	ORANGE		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00
WALLER		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	0.00	
El Paso Area	EL PASO		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00		0.00	0.00	
ETC	RUSK	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.00		0.00		0.00	0.01	0.00	0.04	0.00	0.01	0.00	0.07	0.00	0.00	0.00
	CROCKETT	0.14	0.00		0.00	0.11	0.00		0.00		0.00		0.00	0.03	0.00		0.00		0.01	0.00	0.00	0.00	0.00
	FREESTONE	0.02	0.00	0.02	0.00		0.00	0.04	0.00	0.01	0.00		0.00	0.03	0.00	0.12	0.00	0.04	0.00				

Table 7. 2009 NOx Emissions Reductions Calculations Based on Projected Residential and Commercial Electricity Savings

Classification	County	Annual NOx Reductions (Tons)			Peak-day NOx Reductions (Tons)		
		Residential Subtotal	Commercial Subtotal	Total	Residential Subtotal	Commercial Subtotal	Total
Non-Attainment & Affected (yellow shaded) Counties	Harris	2.81	1.10	3.90	0.01	0.00	0.01
	Tarrant	0.31	0.12	0.43	0.00	0.00	0.00
	Collin	0.00	0.00	0.00	0.00	0.00	0.00
	Dallas	0.31	0.12	0.43	0.00	0.00	0.00
	Bexar	62.37	24.34	86.71	0.17	0.07	0.24
	Travis	0.00	0.00	0.00	0.00	0.00	0.00
	Denton	0.00	0.00	0.00	0.00	0.00	0.00
	Williamson	0.00	0.00	0.00	0.00	0.00	0.00
	El Paso	0.00	0.00	0.00	0.00	0.00	0.00
	Montgomery	0.00	0.00	0.00	0.00	0.00	0.00
	Galveston	2.81	1.10	3.90	0.01	0.00	0.01
	Brazoria	0.31	0.12	0.43	0.00	0.00	0.00
	Comal	0.00	0.00	0.00	0.00	0.00	0.00
	Rockwall	0.00	0.00	0.00	0.00	0.00	0.00
	Hays	0.00	0.00	0.00	0.00	0.00	0.00
	Nueces	0.31	0.12	0.43	0.00	0.00	0.00
	Fort Bend	7.17	2.80	9.97	0.02	0.01	0.03
	Ellis	0.00	0.00	0.00	0.00	0.00	0.00
	Johnson	0.00	0.00	0.00	0.00	0.00	0.00
	Guadalupe	0.00	0.00	0.00	0.00	0.00	0.00
	Kaufman	0.00	0.00	0.00	0.00	0.00	0.00
	Jefferson	0.00	0.00	0.00	0.00	0.00	0.00
	Parker	0.00	0.00	0.00	0.00	0.00	0.00
	Smith	0.00	0.00	0.00	0.00	0.00	0.00
	Bastrop	0.31	0.12	0.43	0.00	0.00	0.00
	Chambers	2.49	0.97	3.47	0.01	0.00	0.01
	Gregg	0.00	0.00	0.00	0.00	0.00	0.00
	San Patricio	0.00	0.00	0.00	0.00	0.00	0.00
	Liberty	0.00	0.00	0.00	0.00	0.00	0.00
	Victoria	0.00	0.00	0.00	0.00	0.00	0.00
	Orange	0.00	0.00	0.00	0.00	0.00	0.00
	Caldwell	0.00	0.00	0.00	0.00	0.00	0.00
	Wilson	0.00	0.00	0.00	0.00	0.00	0.00
	Hardin	0.00	0.00	0.00	0.00	0.00	0.00
	Harrison	0.00	0.00	0.00	0.00	0.00	0.00
	Waller	0.00	0.00	0.00	0.00	0.00	0.00
	Upshur	0.00	0.00	0.00	0.00	0.00	0.00
	Rusk	0.00	0.00	0.00	0.00	0.00	0.00
Other Counties	WARD	0.31	0.12	0.43	0.00	0.00	0.00
	MCLENNAN	0.31	0.12	0.43	0.00	0.00	0.00
	MITCHELL	0.31	0.12	0.43	0.00	0.00	0.00
	FAYETTE	1.25	0.49	1.73	0.00	0.00	0.00
	HOOD	0.00	0.00	0.00	0.00	0.00	0.00
	FREESTONE	0.00	0.00	0.00	0.00	0.00	0.00
	FANNIN	0.00	0.00	0.00	0.00	0.00	0.00
	YOUNG	0.00	0.00	0.00	0.00	0.00	0.00
	CHEROKEE	0.00	0.00	0.00	0.00	0.00	0.00
	TITUS	0.00	0.00	0.00	0.00	0.00	0.00
	LLANO	0.31	0.12	0.43	0.00	0.00	0.00
	PALO PINTO	0.00	0.00	0.00	0.00	0.00	0.00
	HENDERSON	0.00	0.00	0.00	0.00	0.00	0.00
	LIMESTONE	0.31	0.12	0.43	0.00	0.00	0.00
	RED RIVER	0.00	0.00	0.00	0.00	0.00	0.00
	GRIMES	0.00	0.00	0.00	0.00	0.00	0.00
	CALHOUN	0.00	0.00	0.00	0.00	0.00	0.00
	HASKELL	0.00	0.00	0.00	0.00	0.00	0.00
	ROBERTSON	0.00	0.00	0.00	0.00	0.00	0.00
	JONES	0.00	0.00	0.00	0.00	0.00	0.00
	CROCKETT	0.00	0.00	0.00	0.00	0.00	0.00
	CAMERON	0.00	0.00	0.00	0.00	0.00	0.00
	BRAZOS	0.00	0.00	0.00	0.00	0.00	0.00
	LAMAR	0.00	0.00	0.00	0.00	0.00	0.00
	NOLAN	0.00	0.00	0.00	0.00	0.00	0.00
	WHARTON	0.00	0.00	0.00	0.00	0.00	0.00
	HIDALGO	0.00	0.00	0.00	0.00	0.00	0.00
	FRIO	0.00	0.00	0.00	0.00	0.00	0.00
	WEBB	0.00	0.00	0.00	0.00	0.00	0.00
	COKE	0.00	0.00	0.00	0.00	0.00	0.00
	COLEMAN	0.00	0.00	0.00	0.00	0.00	0.00
	HARDEMAN	0.00	0.00	0.00	0.00	0.00	0.00
	TAYLOR	0.00	0.00	0.00	0.00	0.00	0.00
	Total	82.02	32.01	114.03	0.22	0.09	0.31

Table 8. 2009 NOx Emissions Reductions Calculations Based on Residential Electricity Savings from Measurement and Verification of CPS Energy's 2009 DSM Program Offerings, Reported by NEXANT, INC. (2010).

[illegible]

Table 9. 2009 NOx Emissions Reductions Calculations Based on Commercial Electricity Savings from Measurement and Verification of CPS Energy's 2009 DSM Program Offerings, Reported by NEXANT, INC. (2010).

Classification	County	Annual Nox Reductions (Tons)					Peak-day Nox Reductions (Tons)				
		Commercial Lighting	Commercial HVAC	Commercial Others	Demand Response	Subtotal	Commercial Lighting	Commercial HVAC	Commercial Others	Demand Response	Subtotal
Non-Attainment & Affected (yellow shaded) Counties	Harris	0.83	0.22	0.02	0.03	1.10	0.00	0.00	0.00	0.00	0.00
	Tarrant	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	Collin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dallas	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	Bexar	18.48	4.83	0.42	0.62	24.34	0.05	0.01	0.00	0.00	0.07
	Travis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Denton	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Williamson	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	El Paso	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Montgomery	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Galveston	0.83	0.22	0.02	0.03	1.10	0.00	0.00	0.00	0.00	0.00
	Brazoria	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	Comal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Rockwall	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hays	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Nueces	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	Fort Bend	2.13	0.56	0.05	0.07	2.80	0.01	0.00	0.00	0.00	0.01
	Ellis	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Johnson	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Guadalupe	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Kaufman	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Jefferson	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Parker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Smith	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Bastrop	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	Chambers	0.74	0.19	0.02	0.02	0.97	0.00	0.00	0.00	0.00	0.00
	Gregg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	San Patricio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Liberty	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Victoria	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Orange	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Caldwell	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wilson	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hardin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Harrison	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Waller	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Upshur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Rusk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Counties	WARD	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	MCLENNAN	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	MITCHELL	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	FAYETTE	0.37	0.10	0.01	0.01	0.49	0.00	0.00	0.00	0.00	0.00
	HOOD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FREESTONE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FANNIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	YOUNG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CHEROKEE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TITUS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LLANO	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	PALO PINTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HENDERSON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LIMESTONE	0.09	0.02	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00
	RED RIVER	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GRIMES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CALHOUN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HASKELL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	ROBERTSON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	JONES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CROCKETT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	CAMERON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BRAZOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	LAMAR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NOLAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	WHARTON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HIDALGO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	FRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	WEBB	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COKE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	COLEMAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	HARDEMAN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TAYLOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	24.30	6.35	0.55	0.81	32.01	0.07	0.02	0.00	0.00	0.09

Table 10. 2020 NO_x Emissions Reductions Calculations Based on Projected Residential and Commercial Electricity Savings

Classification	County	Annual NO _x Reductions (Tons)			Peak-day NO _x Reductions (Tons)		
		Residential Subtotal	Commercial Subtotal	Total	Residential Subtotal	Commercial Subtotal	Total
Non-Attainment & Affected (yellow shaded) Counties	Harris	64.10	50.34	114.45	0.18	0.14	0.31
	Tarrant	7.12	5.59	12.72	0.02	0.02	0.03
	Collin	0.00	0.00	0.00	0.00	0.00	0.00
	Dallas	7.12	5.59	12.72	0.02	0.02	0.03
	Bexar	1424.50	1118.77	2543.27	3.90	3.07	6.97
	Travis	0.00	0.00	0.00	0.00	0.00	0.00
	Denton	0.00	0.00	0.00	0.00	0.00	0.00
	Williamson	0.00	0.00	0.00	0.00	0.00	0.00
	El Paso	0.00	0.00	0.00	0.00	0.00	0.00
	Montgomery	0.00	0.00	0.00	0.00	0.00	0.00
	Galveston	64.10	50.34	114.45	0.18	0.14	0.31
	Brazoria	7.12	5.59	12.72	0.02	0.02	0.03
	Comal	0.00	0.00	0.00	0.00	0.00	0.00
	Rockwall	0.00	0.00	0.00	0.00	0.00	0.00
	Hays	0.00	0.00	0.00	0.00	0.00	0.00
	Nueces	7.12	5.59	12.72	0.02	0.02	0.03
	Fort Bend	163.82	128.66	292.48	0.45	0.35	0.80
	Ellis	0.00	0.00	0.00	0.00	0.00	0.00
	Johnson	0.00	0.00	0.00	0.00	0.00	0.00
	Guadalupe	0.00	0.00	0.00	0.00	0.00	0.00
	Kaufman	0.00	0.00	0.00	0.00	0.00	0.00
	Jefferson	0.00	0.00	0.00	0.00	0.00	0.00
	Parker	0.00	0.00	0.00	0.00	0.00	0.00
	Smith	0.00	0.00	0.00	0.00	0.00	0.00
	Bastrop	7.12	5.59	12.72	0.02	0.02	0.03
	Chambers	56.98	44.75	101.73	0.16	0.12	0.28
	Gregg	0.00	0.00	0.00	0.00	0.00	0.00
	San Patricio	0.00	0.00	0.00	0.00	0.00	0.00
	Liberty	0.00	0.00	0.00	0.00	0.00	0.00
	Victoria	0.00	0.00	0.00	0.00	0.00	0.00
	Orange	0.00	0.00	0.00	0.00	0.00	0.00
	Caldwell	0.00	0.00	0.00	0.00	0.00	0.00
	Wilson	0.00	0.00	0.00	0.00	0.00	0.00
	Hardin	0.00	0.00	0.00	0.00	0.00	0.00
	Harrison	0.00	0.00	0.00	0.00	0.00	0.00
	Waller	0.00	0.00	0.00	0.00	0.00	0.00
	Upshur	0.00	0.00	0.00	0.00	0.00	0.00
	Rusk	0.00	0.00	0.00	0.00	0.00	0.00
Other Counties	WARD	7.12	5.59	12.72	0.02	0.02	0.03
	MCLENNAN	7.12	5.59	12.72	0.02	0.02	0.03
	MITCHELL	7.12	5.59	12.72	0.02	0.02	0.03
	FAYETTE	28.49	22.38	50.87	0.08	0.06	0.14
	HOOD	0.00	0.00	0.00	0.00	0.00	0.00
	FREESTONE	0.00	0.00	0.00	0.00	0.00	0.00
	FANNIN	0.00	0.00	0.00	0.00	0.00	0.00
	YOUNG	0.00	0.00	0.00	0.00	0.00	0.00
	CHEROKEE	0.00	0.00	0.00	0.00	0.00	0.00
	TITUS	0.00	0.00	0.00	0.00	0.00	0.00
	LLANO	7.12	5.59	12.72	0.02	0.02	0.03
	PALO PINTO	0.00	0.00	0.00	0.00	0.00	0.00
	HENDERSON	0.00	0.00	0.00	0.00	0.00	0.00
	LIMESTONE	7.12	5.59	12.72	0.02	0.02	0.03
	RED RIVER	0.00	0.00	0.00	0.00	0.00	0.00
	GRIMES	0.00	0.00	0.00	0.00	0.00	0.00
	CALHOUN	0.00	0.00	0.00	0.00	0.00	0.00
	HASKELL	0.00	0.00	0.00	0.00	0.00	0.00
	ROBERTSON	0.00	0.00	0.00	0.00	0.00	0.00
	JONES	0.00	0.00	0.00	0.00	0.00	0.00
	CROCKETT	0.00	0.00	0.00	0.00	0.00	0.00
	CAMERON	0.00	0.00	0.00	0.00	0.00	0.00
	BRAZOS	0.00	0.00	0.00	0.00	0.00	0.00
	LAMAR	0.00	0.00	0.00	0.00	0.00	0.00
	NOLAN	0.00	0.00	0.00	0.00	0.00	0.00
	WHARTON	0.00	0.00	0.00	0.00	0.00	0.00
	HIDALGO	0.00	0.00	0.00	0.00	0.00	0.00
	FRIO	0.00	0.00	0.00	0.00	0.00	0.00
	WEBB	0.00	0.00	0.00	0.00	0.00	0.00
	COKE	0.00	0.00	0.00	0.00	0.00	0.00
	COLEMAN	0.00	0.00	0.00	0.00	0.00	0.00
	HARDEMAN	0.00	0.00	0.00	0.00	0.00	0.00
	TAYLOR	0.00	0.00	0.00	0.00	0.00	0.00
	Total	1873.22	1471.19	3344.40	5.13	4.03	9.16

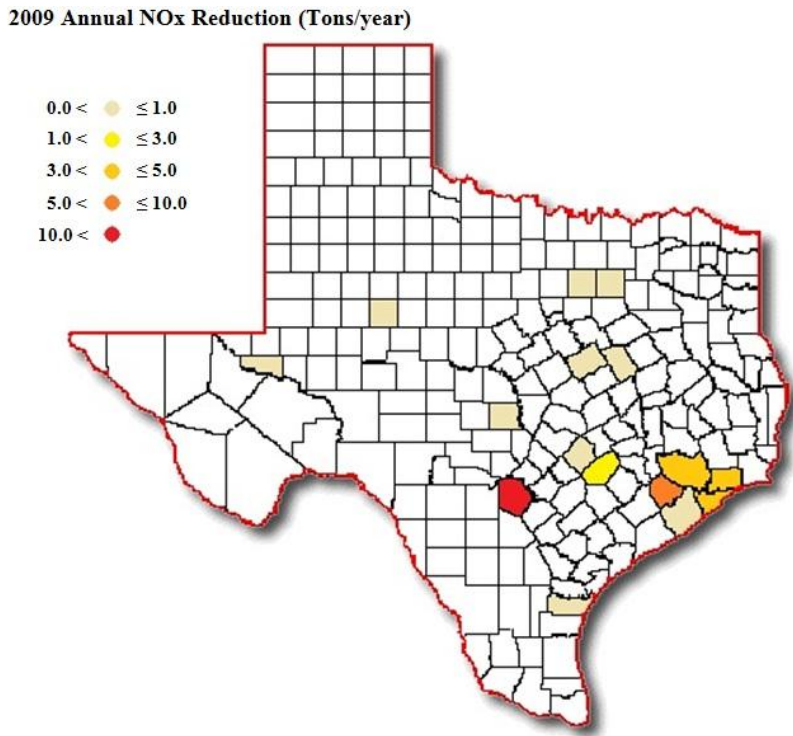


Figure 2. 2009 Annual NOx Emissions Reductions due to Energy Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

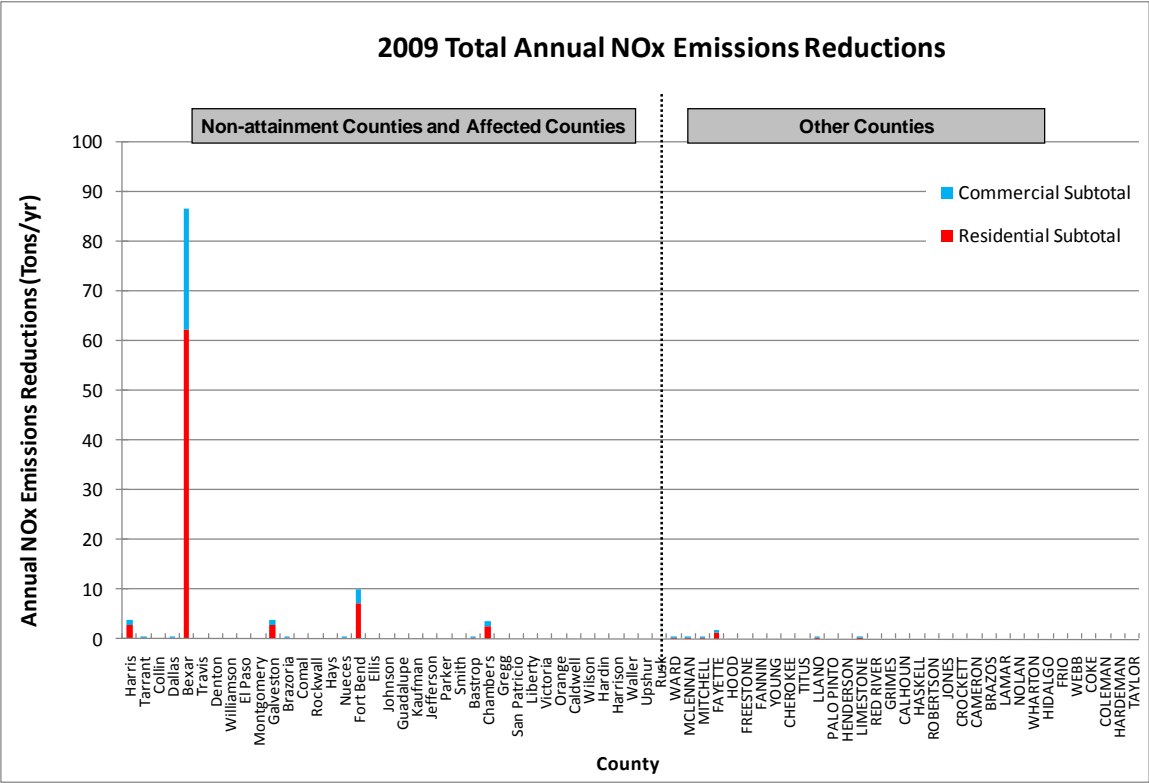


Figure 3. In 2009, Annual NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

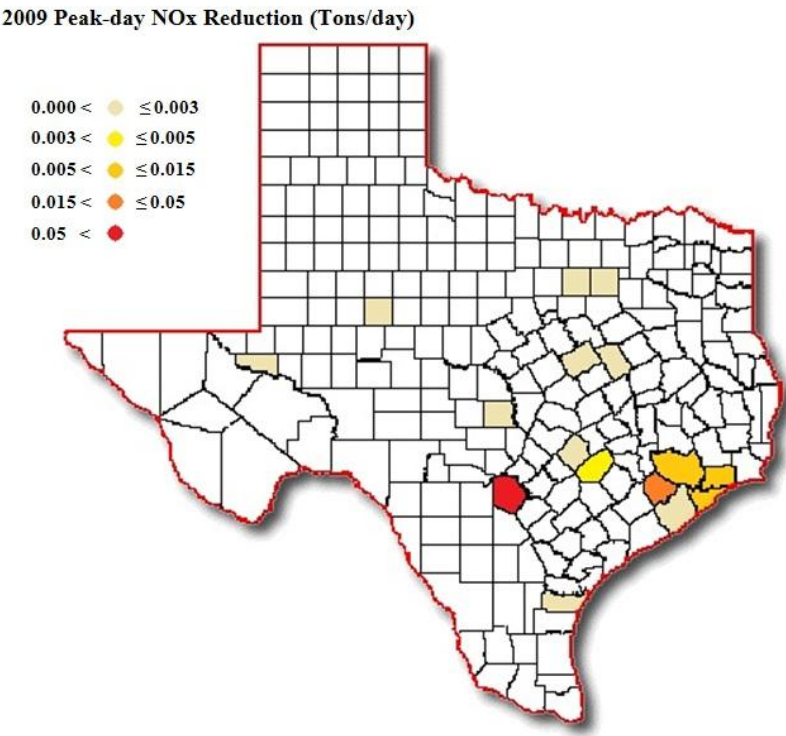


Figure 4. 2009 Peak-day NOx Emissions Reductions due to Energy Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

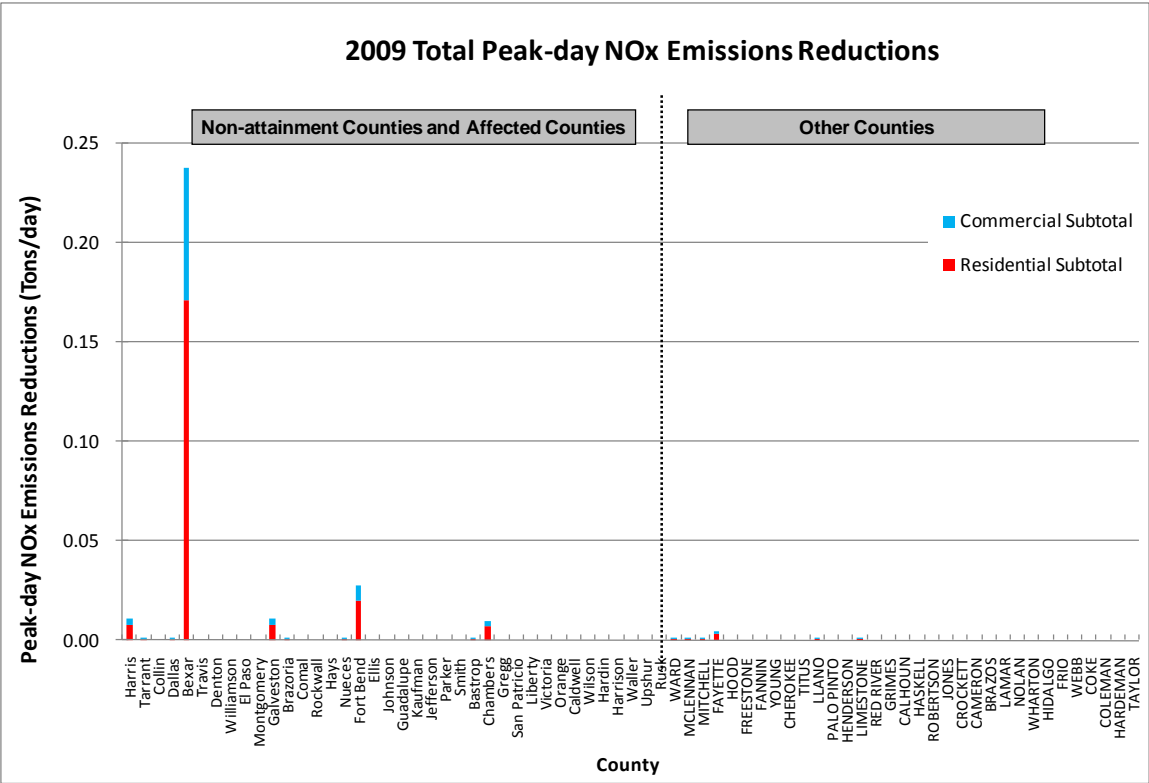


Figure 5. In 2009, Peak-Day NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

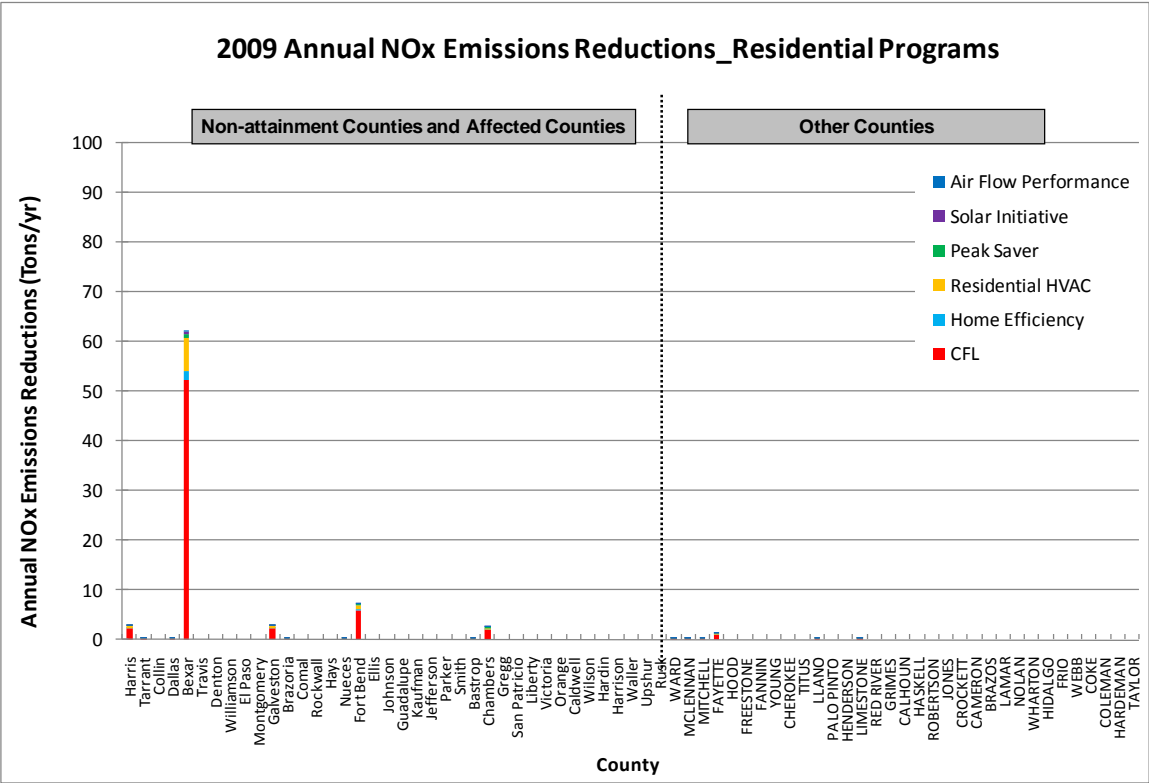


Figure 6. In 2009, Residential Annual NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

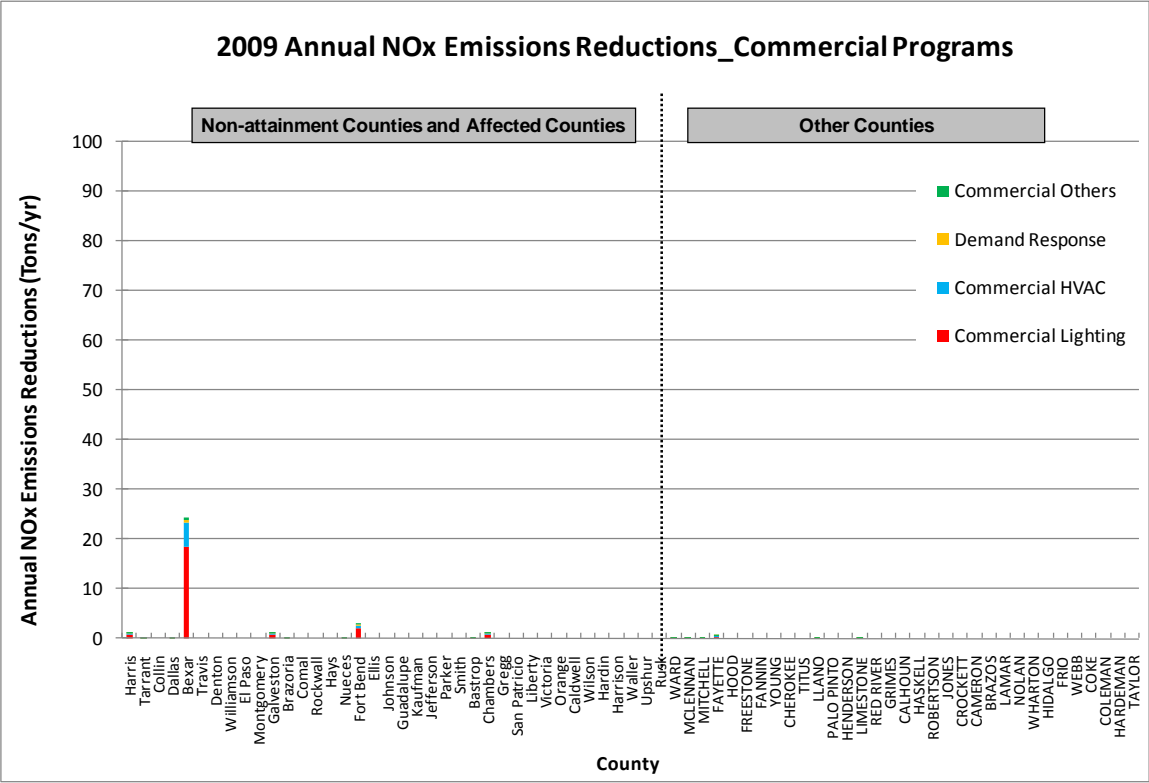


Figure 7. In 2009, Commercial Annual NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

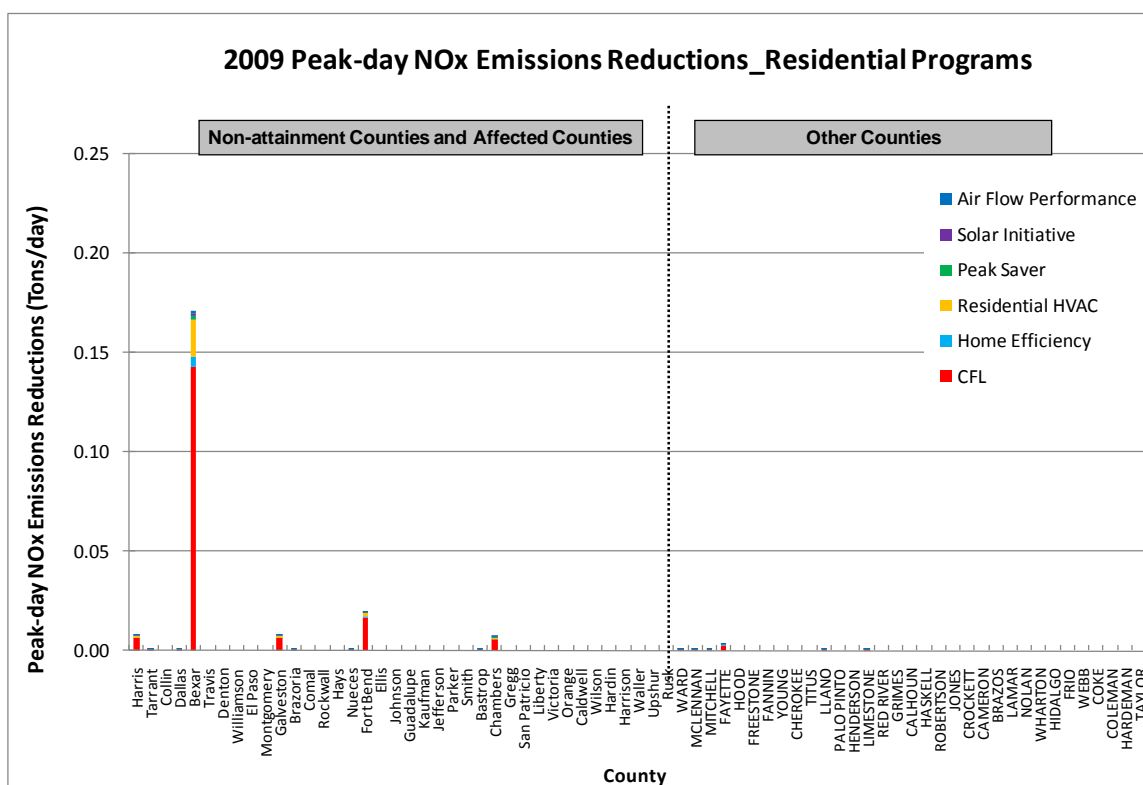


Figure 8. In 2009, Residential Peak-day NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy's "Save for Tomorrow Energy Plan".

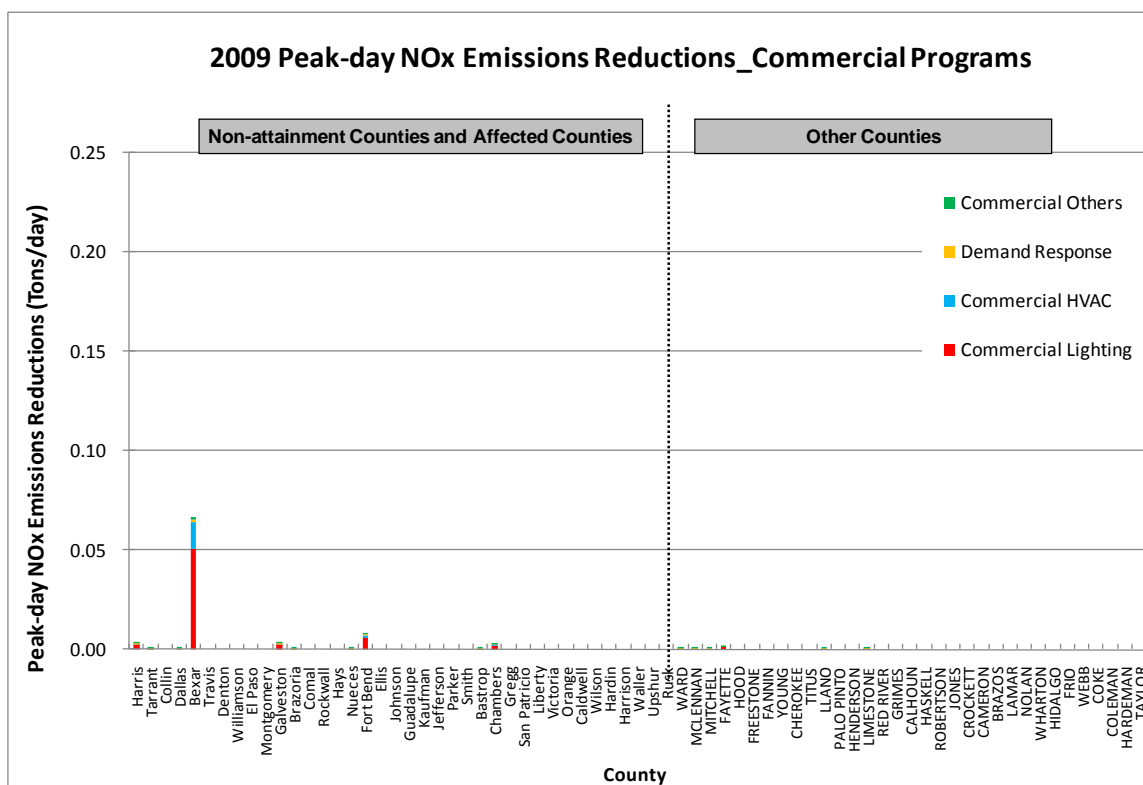


Figure 9. In 2009, Commercial Peak-day NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy's "Save for Tomorrow Energy Plan".

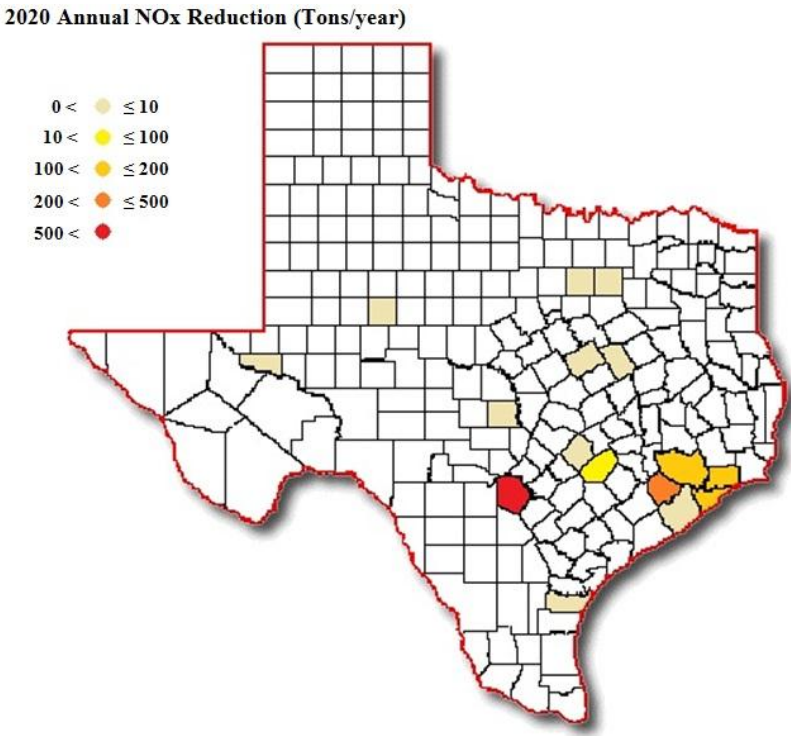


Figure 10. 2020 Projected Annual NOx Emissions Reductions due to Energy Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

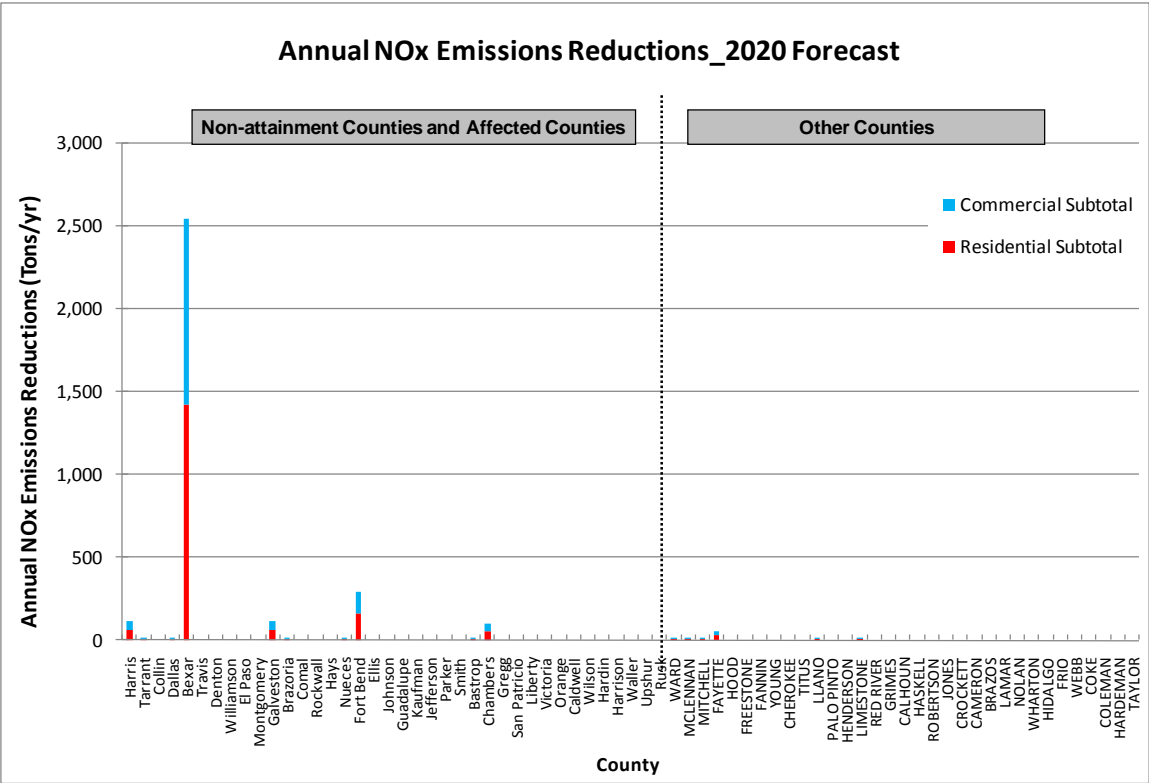


Figure 11. 2020 Projected Total Annual NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

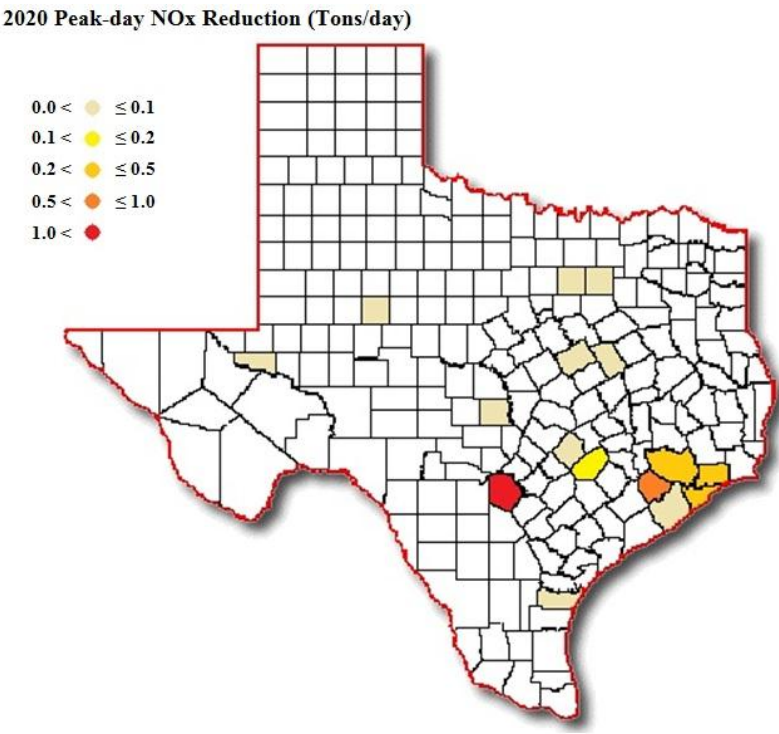


Figure 12. 2020 Projected Peak-day NOx Emissions Reductions due to Energy Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

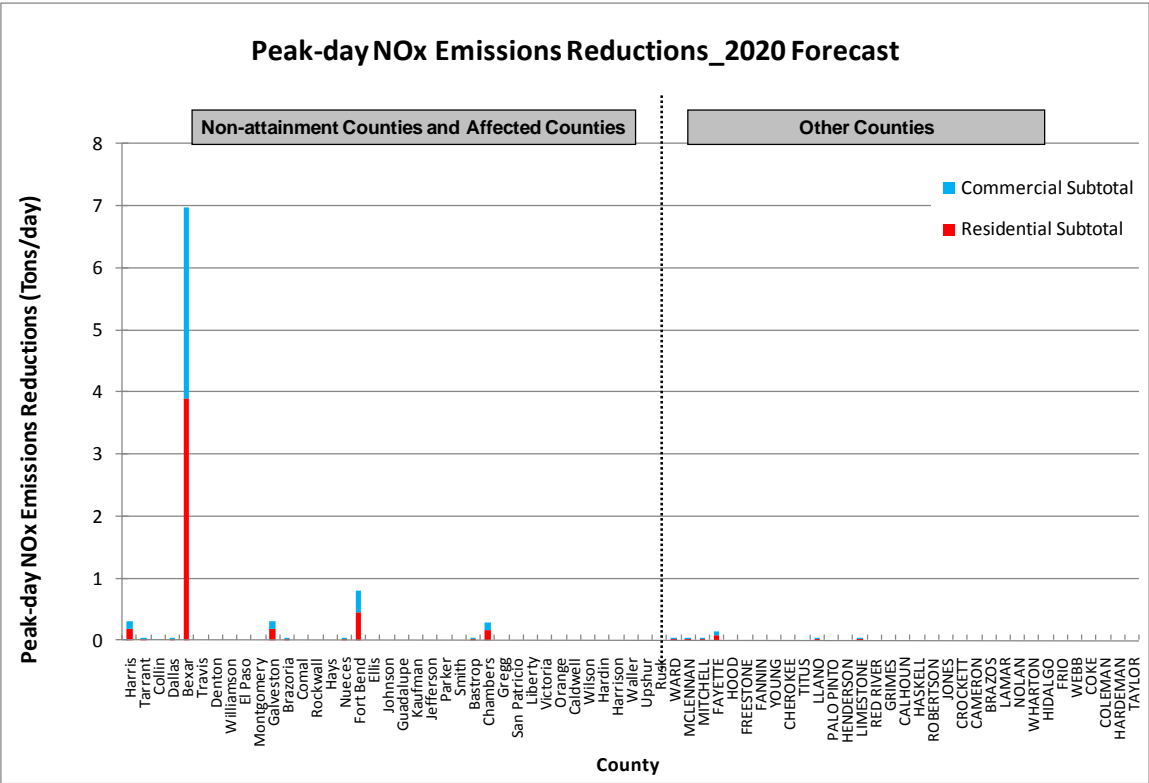


Figure 13. 2020 Projected Total Peak-day NOx Emissions Reductions Based on Total Electricity Savings from CPS Energy’s “Save for Tomorrow Energy Plan”.

6. Summary of NOx Emissions Reductions

The total annual NOx emissions reductions estimated through 2009 energy savings were 114.03 Ton/year. Annual NOx emissions reductions of residential sector were 82.02 Ton/yr and annual NOx emissions reductions of non-residential sector were 32.01 Ton/yr.

The NOx emissions reductions estimated through 2020 energy savings potential were 3,344 Ton/year. Annual NOx emissions reductions of residential sector were 1,873 Ton/yr and annual NOx emissions reductions of non-residential sector, except of industrial sector, were 1,471 Ton/yr.

Table 11. NOx Emissions Reductions

Program Sector	Emissions Reductions in 2009		Emissions Reductions in 2020	
	Annual NOx Emissions Reductions (Tons/yr)	Peak-Day NOx Emissions Reductions (Tons/day)	Annual NOx Emissions Reductions (Tons/yr)	Peak-Day NOx Emissions Reductions (Tons/day)
Residential	82.02	0.22	1,873	5.13
Non-Residential	32.01	0.09	1,471	4.03
Total	114.03	0.31	3,344	9.16

7. References

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